



# **Commander's Environmental & Energy Management Review Board (CEEMRB)**

23 November 2010

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PE

Environmental Officer



# Agenda

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- Environmental update
- Recycling program update
- CG's environmental policy statement
- Status of FY10 Environmental Management System (EMS) objectives and targets
- Proposed FY11 EMS objectives and targets
- Energy conservation update



# Environmental Compliance Evaluations (ECE)

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- FY10 Self-ECE – Butler, Futenma
  - Conducted by the U.S. EPA in June 2010
- FY10 Self-ECE – Fuji
  - Conducted in-house in March 2010
- FY10 Benchmark ECE – MCAS Iwakuni
  - Conducted by HQMC
- FY11 Self-ECEs for all MCBJ
- FY12 Benchmark –ECE – Butler, Futenma
  - Will be conducted by HQMC in January 2012



# FY 10 MCB Butler ECE Results

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- Plans need to be completed/updated:
  - Spill Prevention Control & Countermeasures Plans (2 completed, 1 in final draft)
  - Pest Management Plan (FE updating current plan)
  - Potable Water Master Plan (4 out of 7 completed)
  - Fuel Tank Management Plan (coordinating draft with DLA Energy)
  - Stormwater Management Plan (FE updating)
  - Asbestos Management Plan (Safety update)
  - Comprehensive Env Training & Education Program Plan (draft complete Dec)
  - Natural Disaster Plan (FE will coordinate with G3)
- MCB Butler does not have adequate staffing of the Natural Resources Program
  - Wetlands and range sustainment support



# FY10 MCB Butler ECE Results

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- Hazardous materials (HM) deficiencies
  - No labels on containers
  - MSDSs don't match HM being used
- Hazardous waste (HW) deficiencies
  - Open containers of HW
  - No secondary containment for liquid HW
  - Unknown HW in containers
  - Containers were not in good condition
- Solid waste deficiencies
  - Recyclables mixed with trash
  - Waste batteries mixed with trash



# FY10 ENV Projects Funded by HQMC



<b>Project Title</b>	<b>Current Working Estimate</b>	<b>Estimate Completion Date</b>	<b>Awarded Through</b>
MV-22 Noise Study	\$150K	Mar 2011	NAVFAC SW
Soil Survey	\$100K	Jul 2011	RCO
Wetlands Survey	\$160K	Aug 2011	RCO
MV-22 Environmental Review (will be funded soon)	\$500K	Mar 2012	NAVFAC PAC
GIS Contractor Support - 2 analysts	\$350K	Will continue to request follow-on funding	RCO Camp Pendleton
Radon testing and Mitigation	\$665K	recurring	NAVFAC and DOE
<b>Total</b>	<b>\$1.925M</b>		



# Qualified Recycling Program (QRP)

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- Program still not meeting mandated goals
- Environmental took over program in 2007
- Instituted a competitive bid process resulting in higher prices per kilogram
- Increased recycling from 1,300 tons in FY07 to 2,500 tons in FY10
- QRP Committee must meet annually
- Price of recyclables dropped considerably in the last few years
- No monitoring of recycle containers located at common areas and MCCS events



# QRP Account Status

Year	Sales	Expenses	Gain/(Loss)
FY07 (6 mo)	\$599,478	\$577,729	\$21,749
FY08	\$1,577,541	\$669,430	\$908,111
FY09	\$372,318	\$807,204	(\$434,886)
FY10	\$933,876	\$527,711	\$406,165
FY11 (est)	\$900,000	\$1,200,000	(\$300,000)
Total	\$4,383,213	\$3,782,074	\$601,139

- Need to recapitalize approx \$1.5M in vehicles and equipment in the next three years
- FY11 estimate includes \$600K in vehicles and equipment recapitalization





# QRP Issues



Barracks residents fail to properly segregate recyclables





# QRP Issues



Pizza boxes are no longer recycled because of this

Tobacco spit in cans and bottles

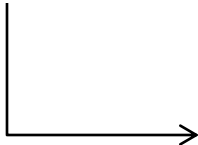


All Recyclables Sorted by Hand by Marine Corps Employees





# MCBJ Environmental Policy *Recommendation - no changes*



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## COMMANDING GENERAL'S ENVIRONMENTAL POLICY STATEMENT 環 境 方 針

The natural environment is a key asset to the training and support mission of Marine Corps Bases Japan (MCBJ). MCBJ has established policies to ensure that our mission is accomplished in ways that are consistent with the best interest of the environment, our service members, and the local community. To this end, we will always strive to protect and preserve the land, water, air, and cultural resources within our cognizance by doing the following:

在日米国海兵隊の訓練及び任務支援において、自然環境は重要な財産です。在日米国海兵隊では、海兵隊の任務が自然環境や軍人及び地域社会にとって最善の形で達成できるよう環境方針を策定しています。そして、下記の方針を実行することにより、海兵隊施設内の土地、水、大気等の資源及び文化財を保護及び保全していくことに常に努めます。

在日米国海兵隊は、

- Complying with applicable Japan Environmental Governing Standards (JEGS)  
在日米軍環境管理基準 (JEGS) を順守します。
- Implementing pollution prevention initiatives and waste minimization programs  
汚染防止に積極的に取り組み、廃棄物の減量化プログラムを実行します。
- Implementing energy conservation initiatives  
省エネルギーの自発的な取り組みを実行します。
- Communicating environmental commitments to all levels of MCBJ to increase awareness of this policy  
基本方針に対する認識を高めるため、環境対策の公約を在日米国海兵隊の各部門及び階層に周知します。
- Minimizing risk to mission  
環境への負荷を抑えることで、任務に与える影響を最小限にします。
- Reviewing all proposed activities for potential environmental impact  
私達の活動が環境に及ぼす影響を考慮に入れ、全活動計画を検討します。
- Striving to advance our partnership with the local community to continue a proactive environmental program  
積極的な環境プログラムの継続に向けて、地域社会との関係強化に努めます。

MCBJ is committed to sustaining and enhancing operational readiness while complying with all applicable environmental laws and regulations, preventing pollution, and continually improving in environmental performance through an effective Environmental Management System (EMS).

在日米国海兵隊は、作戦即応能力の維持・向上を図る一方、環境関連法規を順守し、汚染防止に努め、効果的な環境マネジメントシステム (EMS) 導入による環境負荷の継続的な軽減に取り組むことを約束します。

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Commanding General

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EMS-01.4

Oct 2009



# FY10 EMS Objectives

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## Objective 1: Reduce the impact of solid waste generation

Target	Status
Develop and publish a guide book detailing procedures on how to minimize the generation and the proper disposal of various types of solid waste	Drafted guidebook, awaiting update to JEGS





# FY10 EMS Objectives



## Objective 2: Reduce electricity use in buildings

Target	Status
Select an Energy Savings Performance Contract (ESPC) contractor by the end of the 3 <sup>rd</sup> quarter	Target achieved
Complete energy audits on 25% of all buildings by the end of the 4 <sup>th</sup> quarter	Completed audits on 10% of required facilities. Auditing training delayed until Oct 2010. Audit plan completed
Complete the installation of advanced electric meters by the end of CY10 to meet the Energy Policy Act (EPACT) of 2005	Approx 200-building network, equipment is arriving, estimate installation to begin in Dec 2010 , completion planned for Sep 2011
Complete all documentation for an Inter-agency agreement with the Department of Energy (DOE) by the end of the 2 <sup>nd</sup> quarter	Still in draft, DoE provided training on Okinawa twice this year



# FY10 EMS Objectives



## Objective 3: Reduce vehicle air emissions and fuel consumption

Target	Status
Reduce vehicle fuel consumption by 3% by the end of FY10	<p>3% reduction not achieved, but Drive Green Campaign did realize targeted goals:</p> <ol style="list-style-type: none"><li>1. Reducing number of fossil fuel vehicles through Right Sizing the Fleet (MCPJ Policy ltr 6-09)</li><li>2. Implementation of anti-idling campaign (MCBJ Policy ltr 6-10)</li><li>3. Maximizing use of The Green Line bus service using Informational / Promotional Campaign</li><li>4. Introduction of 24 Electric Vehicles (EV's) into the Fleet</li><li>5. Monitoring of GME in-service vehicles (Road Master checkpoints ) addressing idling and unofficial use</li></ol>



# FY10 EMS Objectives

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## Objective 4: Reduce impact of leaks and spills from vehicle operations

Target	Status
Develop and implement a procedure to inspect and track spill kit usage in tactical vehicles	Target achieved



# FY11 EMS Objectives & Targets



Objective	Target
1. Reduce the impact of solid waste generation	<p>1. Divert 50% of non-hazardous solid waste from the waste stream by FY15 (FY11 Target: 42%)</p> <p>2. Divert 60% of construction and demolition debris from the waste stream by FY15 (FY11 Target: 52%)</p>
2. Reduce electricity use in buildings	<p>1.Reduce energy intensity of facilities by 37.5% by FY20 using FY03 as baseline (FY11 Target: 3% reduction from FY10)</p> <p>2. Produce or procure 18.3% of energy consumed by facilities from renewable sources by FY20 (FY11 Target: Complete design for ECIP Photovoltaic projects)</p>
3. Reduce vehicle air emissions and fuel consumption	<p>1. Reduce use of petroleum products by vehicle fleets by 30% by FY20 using 2005 as baseline (FY11 Target: 4% from FY10)</p>





# Energy Conservation Update

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- First in DoD to award a DoE Super Energy Savings Performance Contract (ESPC)
  - <sup>(b) (6)</sup> will fund, design, and construct energy conservation projects and receive payment through annual energy savings realized
  - <sup>(b) (6)</sup> will conduct investment grade audits during Nov-Mar
    - Focus on upgrades (HVAC, boilers, windows, lighting, water, etc.) to approx 200 large buildings
    - Renewable component may include wind turbines, solar panels, and ground source heat pumps
  - Proposal expected by Jul 2011



# Energy Projects Complete



Project Title	Cost	Status	Funding
Thermal coating to Foster Barracks (Bldgs 470 and 473)	\$270K	Data shows approx \$18K/year savings in Bldg 470 where the whole bldg was coated. Testing same coating at Camp Fuji this FY for cold climate conditions.	EIP



# In-Progress Energy Projects



Project Title	Cost	Completion Date	Funding
High efficiency upgrade Sewage Treatment Plant Camp Hansen (Design)	\$266K	Mar 2011	FSRM
Automated billing integrated with advanced metering system	\$330K	Mar 2011	EIP
Advanced metering installed at approx 200 buildings	\$4.1M	Sep 2011	EIP
Wind generator at Bldg 1	\$275K	Dec 2011	EIP
PV installation at the Foster Shoppette (Bldg 464) and Food Court (Bldg 1002)	\$402K	Dec 2011	EIP
Advanced building controls in Bldg 363 and West Pac (Bldg 14)	\$1.1M	Jan 2012	EIP
<b>Total</b>	<b>\$6.473M</b>		



# Proposed Energy Initiatives



Project Name	Cost	FY
Resource Efficiency Manager (REM) contract	\$225K	FY11
GIS analyst for utility management contract	\$200K	FY11
DoE energy management training support	\$200K	FY11
Net-zero study at Ie Shima and JWTC	\$130K	Via Army Corps in Huntsville, Alabama
<b>Total</b>	<b>\$755K</b>	



# Proposed Energy Projects



Priority	Project Title	Cost	Notes	Funding
1	Green roofs (grass, moss) – for two buildings (Bldgs 363 and 225)	\$545K	Design complete FY09, requesting FY11	EIP
2	High efficiency upgrade sewage treatment plant Camp Hansen (Construct)	\$924K (FY11)	Anticipate construction completion by Jun 2012	FSRM
3	Design funds for five electric vehicle solar charging stations	\$2.5M	Anticipating award and construction in FY12	EIP
	<b>Total</b>	<b>\$3.969M</b>		



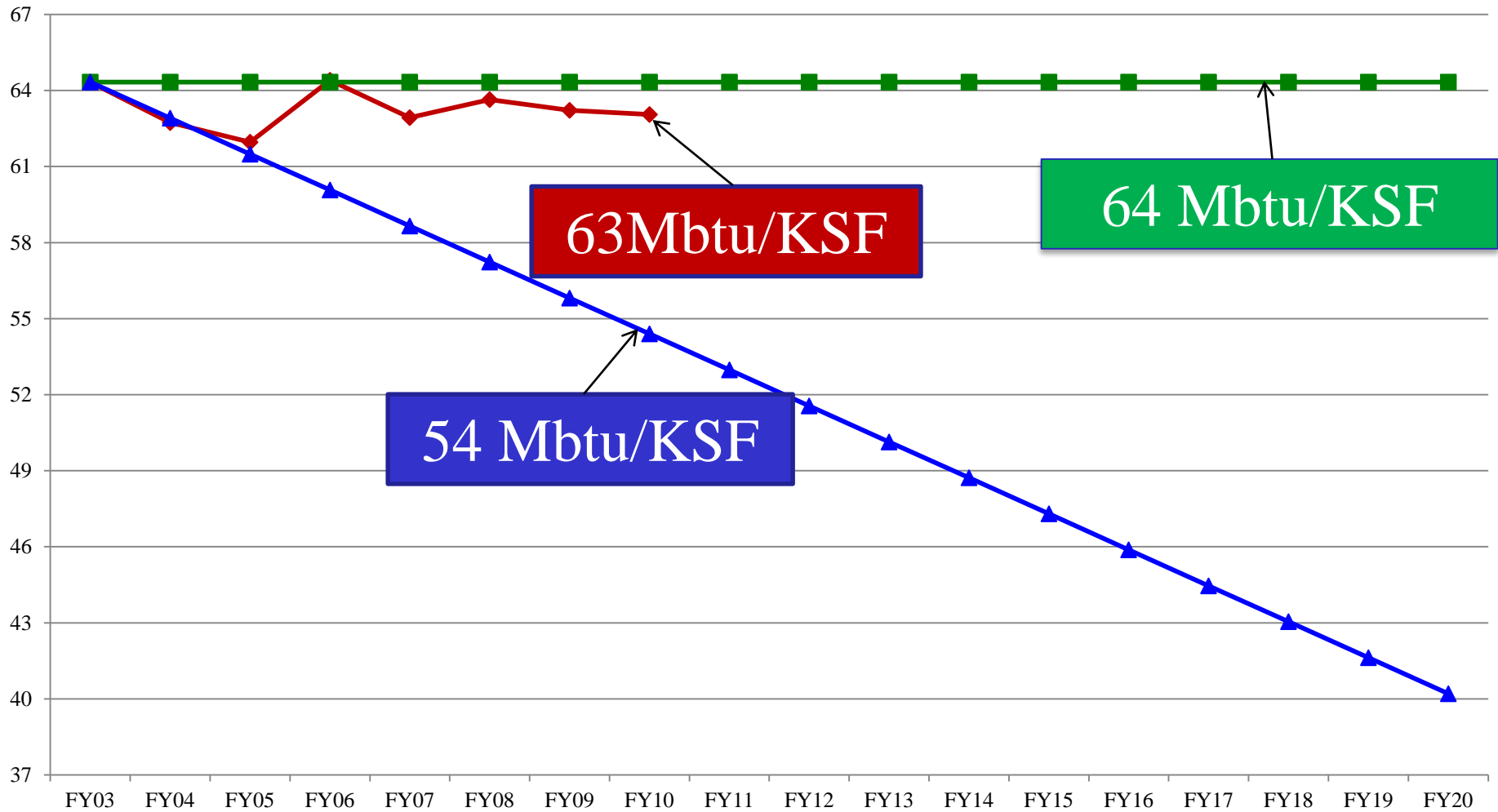
# Proposed Energy Projects



Priority	Project Name	Cost	FY	Program
1	PV roof project Hansen 2118, 2153, 2653	\$7M	FY12	ECIP
2	PV roof project Foster 362, 5634	\$5M	FY12	ECIP
3	PV roof project Courtney 4433, 4450	\$2M	FY12	ECIP
	<b>Total</b>	<b>\$14M</b>		



# Energy Conservation Status





# Marine Corps Energy Progress

(Data from HQMC)



## % Reduction vs. 2003 Baseline

MCB QUANTICO	-32.08%
MCAGCC TWENTYNINE PALMS	-30.45%
MCRD PARRIS ISLAND	-21.84%
MCAS BEAUFORT	-21.36%
MCSF BLOUNT ISLAND	-18.58%
MCAS YUMA	-15.13%
MCAS CHERRY PT	-14.20%
MCB CAMP PENDLETON	-11.38%
MCAS MIRAMAR	-10.19%
MCB HAWAII	-5.65%
MCB CAMP LEJEUNE	-5.50%
MCLB ALBANY	-4.21%
MCB CAMP BUTLER	-1.16%
MCRD SAN DIEGO	3.39%
MCAS IWAKUNI	6.59%
MCLB BARSTOW	67.54%

## MBTU / KSF

USMC BLCMD	41.36
MCAS MIRAMAR	51.17
MCB HAWAII	55.63
MCB CAMP PENDLETON	58.65
MCLB ALBANY GA	61.99
MCAGCC TWENTYNINE PALMS	63.46
MCB CAMP BUTLER	63.58
MCAS YUMA	73.80
MCAS BEAUFORT SC	74.61
MCLB BARSTOW	74.73
MCRD SAN DIEGO	111.18
MCCDC QUANTICO	113.45
MCAS CHERRY PT	119.62
MCAS IWAKUNI	132.76
MCB CAMP LEJEUNE	137.41
MCRD PARRIS ISLAND	156.25





# Marine Corps Energy Progress

(Data from HQMC)



## MBTUs

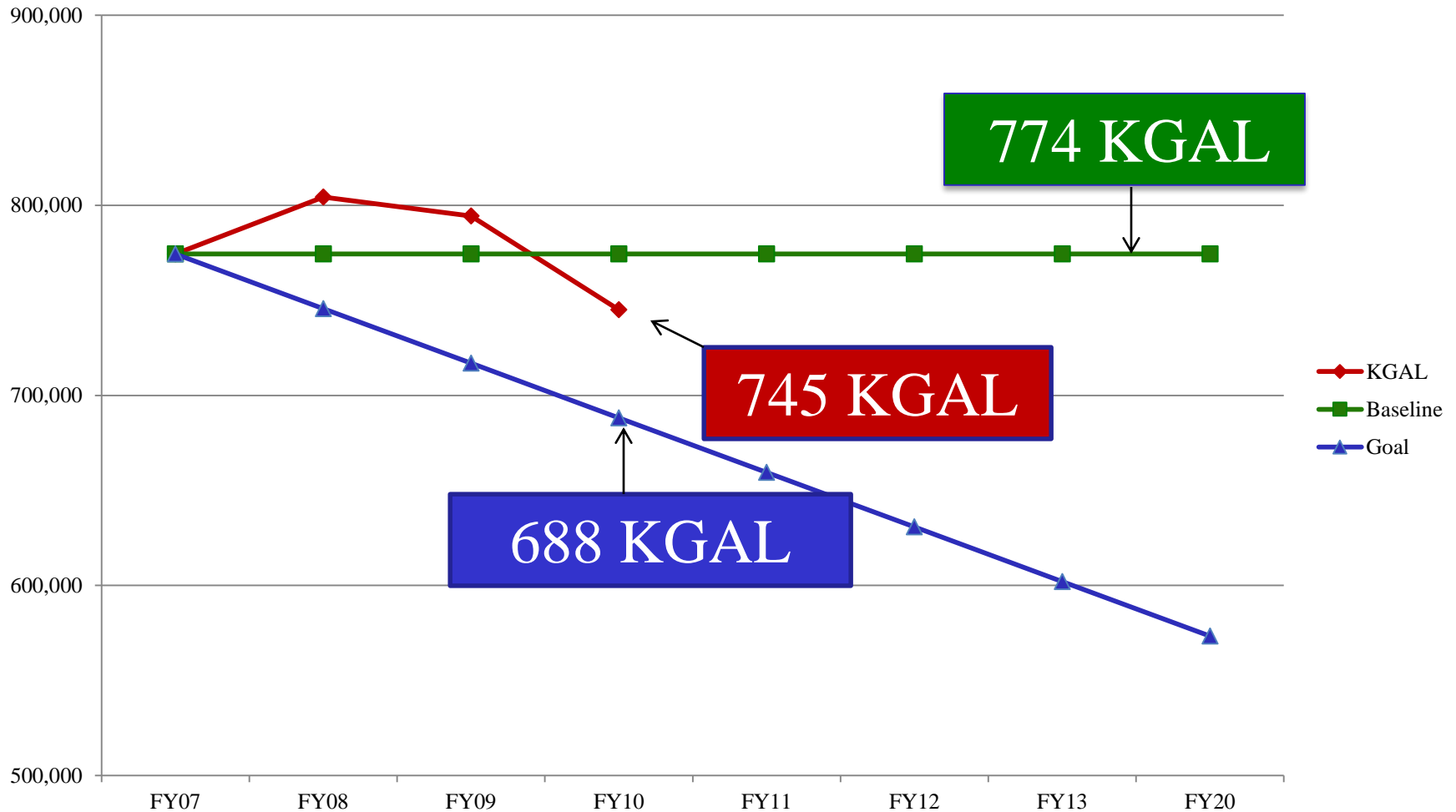
MCB CAMP LEJEUNE	2,838,319	27.64%
MCB CAMP BUTLER	1,175,920	11.45%
MCB CAMP PENDLETON	971,839	9.46%
MCB QUANTICO	791,217	7.70%
MCAS CHERRY PT	720,811	7.02%
MCRD PARRIS ISLAND	598,288	5.83%
MCAS IWAKUNI	530,763	5.17%
MCLB ALBANY	405,879	3.95%
MCAGCC 29 PALMS	381,304	3.71%
MCB HAWAII	341,961	3.33%
MCRD SAN DIEGO	283,169	2.76%
MCAS MIRAMAR	281,755	2.74%
MCLB BARSTOW	252,824	2.46%
MCAS YUMA	198,754	1.94%
MCAS BEAUFORT	191,218	1.86%
MCAS CAMP PENDLETON	61,587	0.60%
MARBKS 8th&I	47,239	0.46%
BLOUNT ISLAND	37,843	0.37%
MWTC BRIDGEPORT	37,303	0.36%
CAMP ALLEN	20,085	0.20%
FIRST MCD GARDEN CITY	19,788	0.19%

## Cost

MCB CAMP BUTLER	\$49,463,993	23.28%
MCB CAMP LEJEUNE	\$38,271,607	18.01%
MCB HAWAII	\$19,701,772	9.27%
MCB CAMP PENDLETON	\$15,876,659	7.47%
MCB QUANTICO	\$13,732,541	6.46%
MCAS IWAKUNI	\$11,849,692	5.58%
MCAS CHERRY PT	\$10,492,624	4.94%
MCLB BARSTOW	\$9,168,794	4.32%
MCAS MIRAMAR	\$8,628,284	4.06%
MCRD PARRIS ISLAND	\$6,916,029	3.26%
MCLB ALBANY	\$5,833,365	2.75%
MCRD SAN DIEGO	\$4,670,216	2.20%
MCAS YUMA	\$3,850,563	1.81%
MCAS BEAUFORT	\$3,615,699	1.70%
MCAGCC 29 PALMS	\$3,432,089	1.62%
MCAS CAMP PENDLETON	\$2,408,157	1.13%
MARBKS 8th&I	\$1,466,964	0.69%
BLOUNT ISLAND	\$1,041,034	0.49%
MWTC BRIDGEPORT	\$1,008,426	0.47%
CAMP ALLEN	\$587,764	0.28%
FIRST MCD GARDEN CITY	\$437,622	0.21%



# Water Conservation Status





# How Commanders Can Help

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- Emphasize the following to your units:
  - Maintain clean, well managed hazardous material storage and hazardous waste accumulation areas
  - Clean small spills quickly; call 911 for large spills
  - Properly dispose of all waste prior to deployment
  - Support recycling program in living and work areas, especially in barracks
- Support MCBJO 5090.3A
  - Air conditioning set at 78° -80° C
  - Turn off computers and other electronics at end of day
  - Space heaters prohibited unless authorized by FE/Fuji FMO
- Maintain close contact with your camp/station environmental staff



# Questions?

